

PHOTOGRAPHY

FAQ

Q Some cameras offer a 3200 ISO speed. Is this worth having?

A The ISO speed dictates a camera's sensitivity. In low light, high ISO speeds allow the camera to capture a well-exposed photo without resorting to blur-inducing long shutter speeds. It's a bit like turning up the volume on a weak radio signal to hear it clearly. High ISO speeds boost the image brightness, but also image noise – graininess caused by random errors in each pixel. The image quality deteriorates as the ISO speed increases.

Some cameras have a maximum ISO speed of 400, while others go up to 3200 or higher. However, the latter is useful only if images aren't obliterated by noise at these settings. Digital SLRs often produce usable results at ISO 3200, but very few compact digital cameras do. Our reviews sort the good from the bad.

Ben Pitt

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FUJIFILM FinePix Z10fd

★★★

£108 inc VAT

From www.pcnextday.co.uk

The ultra-compact Z10fd is the cheeky little brother to the suave and sophisticated Z100fd (see *What's New*, *Shopper* 241). Both are available in a range of colours, but the choice of black, blue, green, olive, red, orange and pink and the curvy design give the Z10fd an air of youthful exuberance rather than luxury. The specifications are more modest, with a 7-megapixel sensor, 3x zoom and run-of-the-mill 2½in, 150,000-pixel screen, but none of these figures should put casual photographers off.

We're pleased to see that the Z100fd's dumbed-down menu system isn't employed here. The Z10fd has dedicated buttons to activate face detection and an anti-blur mode, while more conventional controls such as exposure compensation and ISO speed are fairly quick to access through the Menu button. The zoom control isn't as obvious as it could be – it takes just a few seconds to get used to, but might confuse other people when they're taking a quick snap for you.

Performance is a little disappointing at around 2.5 seconds between shots. The continuous mode is a misnomer, as it managed only one shot every two seconds. Browsing photos is ridiculously slow, due to the use of lethargic transitions to move from one image to another. Thankfully, you can turn these off. The li-ion battery is about the size of an After Eight mint and would struggle to power the camera for a day of enthusiastic shooting.

Image-quality tests revealed a number of problems. None was fatal, but when combined they resulted in disappointing photos. Exposures were well balanced and bright but colours were a little washed out at times. Focus and detail were below



what we expect from a 7-megapixel camera, and nowhere near the standard set by Samsung's similarly priced NV8 (reviewed opposite). Even after resizing both cameras' output to 1-megapixel images on a PC screen, the Samsung's shots looked more detailed. Chromatic aberrations were often clearly visible, producing a halo of discoloration along the edges of highly contrasting subjects.

The camera jumped to unnecessarily high ISO speeds in medium light, increasing image noise. Low-light shots looked reasonable at first glance, but flaws such as spidery edges, messy fine textures and blotchy areas of shade revealed that noise reduction processing was working overtime. The f/3.7 maximum aperture doesn't help, letting in less light than the f/2.8 aperture most cameras offer. This means that the Z10fd must

almost double its ISO or shutter speed to compensate, increasing either noise or the likelihood of blur due to camera shake.

Despite these issues, the Z10fd produces pictures that many casual snappers would be happy with. The lack of detail is particularly disappointing, though. Samsung's NV8 demonstrates that you don't need to settle for anything less than excellent image quality around this price.

Ben Pitt

SUMMARY

- ✓ Fun, friendly design
- ✗ Disappointing image quality
- ✗ Mediocre performance

DIGITAL CAMERA 7.1 megapixels (3,072x2,304), 2.9x optical zoom (38-110mm), SDHC and xD slots (54MB internal), li-ion battery
PART CODE NC00180A
DETAILS www.fujifilm.co.uk

PERFORMANCE (see page 62)

Battery life 231 shots
-50% Reference +50% +100%

Also consider...

PENTAX Optio A30

★★★★★

£135 inc VAT

From www.camerabox.co.uk



The Optio A30 has a 10-megapixel sensor and an optically stabilised 3x zoom lens. It's possible to set the maximum ISO speed in the Auto ISO mode, and this helps to reduce noise. This camera is quick to focus and images have warm, vibrant colours. Portraits have natural skin tones and highlights are not clipped.



DIGITAL CAMERA 10.0 megapixels (3,648x2,736), 3x optical zoom (38-114mm), SDHC slot (22MB internal), 710mAh li-ion battery
PART CODE 19215
DETAILS www.pentax.co.uk
FULL REVIEW Dec 2007

Battery life 283 shots
-50% Reference +50% +100%

CANON EOS 400D

★★★★★

£409 inc VAT

From www.johnlewis.com



Canon's EOS 400D, which won its second Best Buy award in *Labs*, *Shopper* 241, is the best affordable digital SLR camera on the market. It's really hard not to love this camera's incredibly fast focusing, high capture rate and brilliant image quality from the 10.1-megapixel sensor. For enthusiasts who want to upgrade from a film SLR or compact camera, this is undoubtedly the model to get.



DIGITAL CAMERA 10.1 megapixels (3,888x2,592), 3x optical zoom (18-55mm), CompactFlash slot, li-ion battery
PART CODE 1237 B009AA
DETAILS www.canon.co.uk
FULL REVIEW Mar 2008

Battery life 506 shots
-50% Reference +50% +100%

SAMSUNG NV8

★★★★★

£115 inc VAT
From www.play.com



This is the fifth camera we've seen from Samsung's NV range, which has consistently impressed us with its smart designs, innovative controls and great image quality. The NV8 doesn't have the extended zoom range, double-figure megapixel rating or MP3-playback capabilities of the other models we've seen, but it shares various other desirable features with its predecessors and costs remarkably little.

The design is extremely compact at 19mm thick and 152g, but its styling is aimed more at photography enthusiasts than gadget lovers. This is reinforced by the inclusion of a well-implemented manual exposure mode, which is a rare treat on an ultra-compact camera, although the lack of priority modes and manual focus take the shine off. As with most models in the NV range, the NV8 eschews the usual four-way navigation pad in favour of 13 function buttons along the edge of the 2½in screen that line up with onscreen icons. This puts all the key controls in plain view and keeps menu delving to a minimum, but people with large fingers may find the tightly packed buttons a little fiddly.

Performance is a marked improvement over that of previous NV cameras. The NV8 takes just two seconds to switch on and capture a photo, and 1.7 seconds between subsequent shots. The auto-focus is quick if a little

unreliable, but the great screen made it obvious when another attempt at focusing was required. Flash recycling times are quick, but the 0.8fps continuous mode is disappointing, as is the 240-shot battery life. We welcome the versatility of being able to charge the battery through USB or the mains adaptor, although both wires plug directly into the camera so it's not possible to charge one battery while using a second one.

Our image tests revealed some of the sharpest detail we've ever seen from a compact digital camera. Its ability to capture fine textures such as skin and hair was as good as – and often surpassed – the best 10- and 12-megapixel compact cameras, including the more expensive NV11, a camera we praised for its sharp detail in our labs test (see *Labs, Shopper* 238).

Noise levels were even more impressive, with barely a hint of noise at ISO 800 except in areas of solid dark colour. Detail in fine textures was preserved extremely well, though, which

indicates that the NV8 doesn't rely on heavy noise reduction processing to keep noise at bay. Results were still perfectly usable at ISO 1600, and even ISO 3200 photos were good enough for viewing onscreen and small prints – something we have never been able to say about a non-SLR camera before. The key to the camera's success is its generous ⅓in sensor size and relatively modest 8-megapixel



rating – this means that each pixel on the sensor is physically larger than those in most compact cameras, allowing it to capture more light and measure it more accurately.

Colours left little room for criticism, with vibrant, accurate hues indoors and out, and warm, superbly exposed skin tones under the flash. However, the automatic mode used ISO speeds of only 100 or 200, which resulted in blur from the long shutter speeds when shooting in low light without the flash. This was easily remedied by switching to Program mode and adjusting the ISO speed manually, but a more versatile automatic mode or a high-sensitivity scene preset would be better. Instead, Samsung offers an Advanced Shake Reduction (ASR) mode, which uses some clever digital processing to reduce blur, but it can't be used in conjunction with the manual ISO speed control. In our indoor tests we achieved better results by shooting at ISO 800 than by using ASR.

This is the only significant flaw in what is otherwise one of the best compact digital cameras we have ever seen – and certainly the best for less than £150. If you're prepared to adjust the ISO speed manually in low light, it's an unbeatable buy.

Ben Pitt

SUMMARY

- ✓ Fantastic image quality
- ✓ Luxurious design
- ✗ Inappropriate settings in low light

DIGITAL CAMERA 8.0 megapixels (3,264x2,448), 3x optical zoom (34–102mm), SDHC slot (20MB internal), li-ion battery
PART CODE 8801089435538
DETAILS www.samsungcamera.com/uk

PERFORMANCE (see page 62)

Battery life **240 shots**
 -50% Reference +50% +100%

PANASONIC Lumix DMC-FZ18

★★★★★

£235 inc VAT
From www.purelygadgets.co.uk



Panasonic's DMC-FZ18 has a huge 18x optically stabilised zoom lens and is capable of stunning photos. It has a comprehensive range of controls and is fairly fast to start up and take shots.

The 8-megapixel sensor may not have the highest resolution, but the DMC-FZ18 comes close to entry-level DSLR quality for less money. It's the best super-zoom digital camera around.



DIGITAL CAMERA 8 megapixels (3,264x2,448), 18x optical zoom (28–504mm), SDHC slot (27MB internal), li-ion battery
PART CODE DMC-FZ18EB-K
DETAILS www.panasonic.co.uk
FULL REVIEW Mar 2008

Battery life **313 shots**
 -50% Reference +50% +100%

FUJIFILM FinePix F20

★★★★★

£98 inc VAT
From www.kikatek.com



Despite its low price, Fujifilm's FinePix F20 camera has a metal body and a lithium-ion battery. The F20's 2½in screen is also above average for a budget camera.

The FinePix F20 offers superb image quality and produced pleasing colours and sharp detail. It is an excellent camera at an excellent price.



COMPACT DIGITAL CAMERA 6.1 megapixels (2,848x2,136), 3x optical zoom, 10MB internal memory, xD slot, 3.6V 1,150mAh li-ion battery
PART CODE N077830A
DETAILS www.fujifilm.co.uk
FULL REVIEW Sep 2007

Battery life **432 shots**
 -50% Reference +50% +100%

CANON PowerShot A570 IS

★★★★★

£104 inc VAT
From www.bigcitydigital.co.uk



The A570 IS has a 4x optically stabilised zoom lens, which makes it great for counteracting camera shake, especially in low light. It also has face detection and full photographic control including aperture- and shutter-priority modes. Image quality is as good as we'd expect given the specifications and price.



DIGITAL CAMERA 7.1 megapixels (3,072x2,304), 4x optical zoom (35–140mm), SDHC slot (16MB card supplied), 2x AA batteries
PART CODE 1773B008AA
DETAILS www.canon.co.uk
FULL REVIEW Nov 2007

Battery life **340 shots**
 -50% Reference +50% +100%

NIKON Coolpix L14

★★★★

£80 inc VAT

From www.play.com

Nikon's Coolpix range is divided into cameras with P, S and L prefixes, which stand for Performance, Style and Life. It's little surprise that the L14 isn't particularly advanced – especially at this price – and it's not much of a looker, either.

Like most budget cameras, it uses AA batteries, which you'll need to buy separately when the supplied alkaline ones run out. Battery life is excellent, though, managing 779 shots with our 2,700mAh NiMH rechargeable batteries.

Performance is pedestrian: the L14 took almost four seconds to switch on and take a picture, and 2.5 seconds between subsequent shots. The

controls won't slow you down, though, as there are hardly any to worry about. Manual ISO speed, metering and focus options are all absent. Exposure compensation and white balance presets are included, though, and give you just enough control to produce pleasing exposures in most conditions.

Our image tests revealed dependable colour reproduction and, save for the



odd auto-focus error, respectable detail. You can't adjust the ISO speed manually, but by examining the EXIF data from our test shots we were able to find out how well the camera performed at different ISO speeds. Sadly, the answer was poorly. Nikon states that the automatic ISO varies between 64 and 1000, but in our tests it never rose above 400. Often this wasn't fast enough for blur-free shots indoors, and it still resulted in noisier photos than most other cameras produce at ISO 400.

Still, if you're happy to use the flash indoors and a makeshift tripod outdoors at dusk, the L14 is capable of respectable photos. It's worth spending £18 more on the Fujifilm F20 (see 'Also consider...', page 41) for a big jump in quality and features, but if your budget is strictly limited, the L14 is a decent choice.

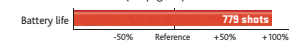
Ben Pitt

SUMMARY

- ✓ Straightforward operation
- ✓ Excellent battery life
- ✗ Disappointing images in low light

DIGITAL CAMERA 7.1 megapixels (3,072x2,304), 3x optical zoom (38-114mm), SDHC slot (23MB internal), 2x AA batteries
PART CODE VMA110E6
DETAILS www.europe-nikon.com

PERFORMANCE (see page 62)



CASIO Exilim EX-S880

★★★★★

£135 inc VAT

From www.dabs.com

The EX-S880 is remarkably thin at just 17mm from front to back. In fact, it's almost too thin – the smooth design leaves very little to cling on to and the top-mounted buttons are fiddly. The deep red glossy finish looks great but it picked up quite a few scratches during our review period. A docking station is supplied for charging the battery and transferring images, which is handy when you're at home but more bulk to carry when travelling.

It takes just over a second to switch on and capture a photo. Auto-focusing is extremely quick and browsing pictures is so fast that it resembles an animated movie. The key controls are easy to navigate, and – ignoring the disappointing 0.7fps continuous shooting speed – the overall effect is of an extremely responsive camera. However, we'd advise deactivating the Quick Shutter option, which saves time by not bothering to focus.

There's no shortage of quirky features to keep you occupied and, if you're lucky, improve picture quality. Face detection claims to give priority to predefined friends and family members, although



it struggled to spot faces at all. A Dynamic Range option boosts the brightness (and noise) in dark areas of images but doesn't rescue any highlight detail. There are separate buttons for still and video capture, plus scene presets for both, including one that records at the ideal specifications for uploading to YouTube. Another preset buffers video and saves up to five seconds before the record button is pressed, but for some reason it stops a couple of seconds later.

Image quality in our tests was above average for a camera at this price, with sharp detail that trailed off a little at the edges of photos. Colours were rich and flattering, automatic exposure settings were well chosen and noise was bearable at the maximum ISO 800 setting. It can't match Samsung's NV8 (see page 41), but it's likeable nonetheless.

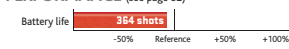
Ben Pitt

SUMMARY

- ✓ Dependable image quality
- ✓ Plenty of fun features
- ✗ Awkward handling

DIGITAL CAMERA 8.0 megapixels (3,264x2,448), 3x optical zoom (38-114mm), SDHC slot (11MB internal), Li-ion battery
PART CODE EX-S880RDDDC
DETAILS www.casio.co.uk

PERFORMANCE (see page 62)



CHOOSING A... Compact Digital Camera

Follow the steps to find your ideal specs

RESOLUTION: 7.1 megapixels
ZOOM: 3x optical (35-105mm)
MONITORING: 2.4in, 115,000-pixel LCD screen
SUPPLIED MEMORY: 10MB internal
BATTERIES: 2x AA disposable
Recommended minimum in grey

1 A digital camera with the specifications shown in grey will suit those who want to take pictures to view on their PC and create 7x5in prints. It should cost around £80, but there may be hidden downsides such as slow performance and very basic user controls.

2 Spend more and you'll get a higher resolution. An 8-megapixel sensor has the potential to produce sharp prints up to A4 size, but only if it and the lens are suitably high quality. There are 10-megapixel compact cameras available, but we've yet to see one that's significantly better than 8-megapixel models. Most people don't print enlargements so a 6-megapixel sensor is sufficient.

3 A 3x zoom lens gives reasonable scope for framing your shots, but a larger range can do wonders for your photographic skills. Some compact cameras manage a 6x zoom while a few go as far as 10x. However, big zooms need optical image stabilisation to avoid blur at extreme settings. Alternatively, consider a wide-angle lens, denoted by a 28mm or lower minimum focal length.

4 Big LCD screens are a treat to use but they don't always offer sharper detail. A 2½in screen is common even in the budget market, but only the best have resolutions of 200,000 or more pixels.

5 Consider hidden costs: budget £5 for a 1GB memory card, as the bundled memory will never be enough. If your chosen camera doesn't have rechargeable batteries, budget an extra £15 to buy a set.

6 Don't forget that specifications tell you very little about image quality; you'll need to read our reviews for that. In a compact camera, we believe that the user shouldn't have to grapple with complicated controls to get great images in all lighting conditions.